Amendments to the Specification:

Please replace the paragraph on page 9, lines 8 - 23, with the following amended paragraph:

These novel compositions are structurally based on D-loops as described in U.S. application ser. nos. 08/381634**, now abandoned**; 08/882756**, now U.S. Pat. No. 5,929,043**; 09/301153**, now U.S. Pat. No. 6,245,565**; 08/781329**, now U.S. Pat. No. 5,989,879**; 09/288586**, now U.S. Pat. No. 6,200,812**; 09/209676**, now U.S. Pat. No. 6,524,856**; 09/007020**, now U.S. Pat. No. 6,090,539**; 09/179916**, now U.S. Pat. No. 6,391,564**; 09/182102**, published as U.S. 2003-0143533 A1, now abandoned**; 09/182097; 09/181027**, published as US 2003-0208053 A1, now abandoned**; 09/260624**, published as US 2002-0137698 A1, pending**; 09/373,347**, abandoned**; 09/306,749**, pending**; 60/153,795**, expired**; and international application nos. **PCT/**US97/19324; **PCT/**US98/26498; **PCT/**US98/01825, ~~**USPN**~~ **U.S. Pat. No.** 5763240, ~~**USPN**~~ **U.S. Pat. No.** 5731411, ~~**USPN**~~ **U.S. Pat. No.** 5510473; ~~**USPN**~~ **U.S. Pat. No.** 5948653; ~~**USPN**~~ **U.S. Pat. No.** 4888274, ~~**USPN**~~ **U.S. Pat. No.** 5510473, ~~**USPN**~~ **U.S. Pat. No.** 5460941, all of which are expressly incorporated by reference in their ~~**entirety**~~ **entireties**. In general, as depicted in Figure 2A, double D-loops are comprised of the double stranded target sequence which is separated by the incoming pair of substantially complementary targeting polynucleotides, to form two new double stranded sequences. Previous work has utilized "internal homology clamps", as depicted in FIGS. 2B and 2F, which stabilize the double D-loop structure. However, upon deproteinization of these double D-loop structures, without additional components, the double D-loop structures are not necessarily stable, and may not result in modulation of copying through the double D-loop. Since most copying enzymes can unwind Watson-Crick duplexes, the strand of the probe which is paired with the template strand of the target will be displaced in the course of the copying. The

other probe, which remains in a complex with the displaced non-template strand of the target may not have any effect on copying, due to its remote location from the copying enzyme.

Please replace the paragraph on page 25, lines 1 - 12, with the following amended paragraph:

The targeting probes, containing one or more of the above-mentioned structures, are made as is generally known in the art, and outlined herein. Once made, the targeting probes are generally combined with a recombinase. The recombinase in general is bound to or coats the targeting polynucleotides. The conditions used to coat targeting polynucleotides with recombinases such as RecA protein and ATPγS have been described in commonly assigned ~~U.S.S.N.~~ **U.S. patent application serial no.** 07/910,791, filed 9 July 1992**, abandoned, which is a continuation-in-part of U.S. patent application serial no. 07/755,462, now U.S. Patent No. 5,273,881**; ~~U.S.S.N. 07/755,462, filed 4 September 1991~~; and U.S.S.N 07/520,321, filed 7 May 1990, **now U.S. Pat. No. 5,223,414,** each incorporated herein by reference. The procedures below are directed to the use of E coli RecA, although as will be appreciated by those in the art, other recombinases may be used as well. Targeting polynucleotides can be coated using GTPγS, mixes of ATPγS with rATP, rGTP and/or dATP, or dATP or rATP alone in the presence of an rATP generating system (Boehringer Mannheim). Various mixtures of GTPγS, ATPγS, ATP, ADP, dATP and/or rATP or other nucleosides may be used, particularly preferred are mixes of ATPγS and ATP or ATPγS and ADP.

Please replace the paragraph on page 25, lines 14 - 22, with the following amended paragraph:

RecA protein coating of targeting polynucleotides is typically carried out as described in ~~U.S.S.N.~~ **U.S. patent application serial no.** 07/910,791, filed Jul. 9, 1992**, abandoned, which is a continuation-in-part of U.S. patent application serial no. 07/755,462, now U.S. Patent No. 5,273,881** ~~and U.S.S.N. 07/755,462, filed 4 September 1991~~, which are incorporated herein by reference. Briefly, the targeting polynucleotide, whether double-stranded or single-stranded, is ~~heating~~ **heated** in an aqueous solution at 95-100°C for five minutes, then placed in an ice bath for 20 seconds to about one minute followed by centrifugation at 0°C for approximately 20 sec, before use. When denatured targeting polynucleotides are not placed in a freezer at -20°C they are usually immediately added to standard RecA coating reaction buffer containing ATPγS, at room temperature, and to this is added the RecA protein. Alternatively, RecA protein may be included with the buffer components and ATPγS before the polynucleotides are added.

Please replace the paragraph on page 45, lines 14 - 23, with the following amended paragraph:

Example 3

Blocking transcription using locks

In these experiments a modified version of *in vitro* transcription assay described by Golub *et al.*, (1992, 1993, *supra*) was used. Briefly, double-stranded DNA fragments having about 300 bp of homology (including T7 promoter) with a pBluescript II SK(-) were obtained by PCR either from pBluescript II SK(-) or pTL plasmid (pTL plasmid was derived from pBluescript II SK(-) by inserting the triplex forming sequence, 5-GGGTGGTGGGTGGGGTATTAGGGGAGGG**[[G]]**AGGAGG**G**-3 (SEQ ID

NO: 17) (Dayn *et al.*, 1992, *supra*) into the *Hind*III/*Eco*RI site; Figure 16). The probes obtained from pTL plasmid were designed to form a triplex lock when targeted to pBluescript II SK(-). In addition, probes shown in Figure 9A-C also are used.